

GS-01 and GMSA Training FAQs

(Questions received from 12/8/14, 12/9/14, 12/18/14 & 12/19/14 training sessions)

1. GMSA Manual; Page 47, Note B: What is the expectation for “consistent inspection and monitoring”?
Page 61 states “the SPAF must be completed quarterly in order to maintain “active” status”. The SPAF has been modified to better define the expectations for inspection and monitoring.
2. GMSA Manual; Page 47, Note B: What is the definition of “active”?
Active Well (Geotechnical Services definition): A monitoring well that is having readings taken at least quarterly (once every 3 months) and a SPAF is being completed and submitted to the DBC and populated into the BSPID (see GMSA pages 52-54 for SPAF Process).
3. GMSA Manual; Page 56: “The Drill Log documents” is confusing. I thought this was a document (piece of paper)? I suggest you change it to something like “The Drill Log is a database that...” or “The purpose of the Drill Log Database is to...” Also suggest an example Drill Log be included in the Module so that I can see what you are talking about.
The Drill Log documents the daily activity of the drill crew (either CT or consultant) for a borehole. It is completed by the lead driller. It can be accessed through the Geotechnical Design Project Tracking database.
4. GMSA Manual; Page 82: What are the top two (2) rows for in the table? $9 \rightarrow 16 = 8$ rows; there are eight (8) rows in the table.
The checklists have been revised and posted.
5. When does this new process take effect?
January 1, 2015.
6. If I am understanding implementation correctly, if we have an active project that is somewhere in the middle of the drilling process (i.e. drill request submitted, drilling scheduled) on January 1, 2015 that project will follow the interim process and not GMSA. Can you please confirm this?
If a hole was sealed after January 1, 2015 then all GMSA actions are to be accounted for. The interim process is no longer used.
7. List responsibilities of all parties.
 - A. What are the GPs legally responsible for?
GPs are responsible for following all State, Federal, and local Laws.
 - B. If there is a disagreement in the field, who has authority to direct the work?
See your supervisor if there is a conflict.
8. I’ve read the law, aren’t landslide activities exempt from these requirements. We don’t want to delay emergency work.
Landslide activities are not exempt. LEAs have processes to address emergency work. Contact your LEA to communicate the scope of work and response activities.
9. How does the new GMSA policy affect existing projects? Past paperwork won’t be compliant.
You are correct and that may be acceptable. If a hole was sealed after January 1, 2015 then all GMSA actions are to be accounted for.

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10. Has anyone submitted any of this paperwork to the LEAs? What was the result?
Yes, and in doing so we complied with GMSA. In some cases a permit was required in others not.
11. For LEAP process, does the map on the Layout Plan Sheet need to include the CPT location? It is not shown on the example.
Yes. The map should have shown the CPT location. A revised map will be issued in the next version of GMSA.
12. Regarding Page 17 of Supplement A, paragraphs 15 – 18; if the LEA is a no-show @ 2 p.m. (the inspector is not there); should I tell the driller to pack up and go home?
No. Read and comply with GMSA page 17, Items 11 through 21.
13. Cooperation is needed from the drilling crew, which that has been difficult up here in the past. Can the driller complete forms indicating pipe diameter by interval, as well as amounts of grout and/or bentonite used to complete each boring? **No, this information is placed on the WCR by the consultant or the BBDS by a GP/Consultant.** They have not recorded these things per boring in the past, nor do they effectively communicate while on site. A readable copy of the 2015 drillers log is not in our manual, although it was discussed during the training. The requirements for the drillers to document such information should be strengthened and the geo-professional should be provided with a copy of a comprehensive driller's log for each hole.
14. What are the means, methods, and requirements for backfilling a hole drilled with a horizontal drill rig either horizontally or at some angle upward? In water zone and not in water zone? This is a problem I will be facing within the next year on a project up here in Shasta County (no water zone so no C-57 will be required). It is the only way to investigate a potential cut slope.
Currently Drilling Services does not have the equipment to grout or chip this type of boring. Until such equipment is acquired, it is recommended that a different strategy be adopted or to use consultant drillers with this equipment. You still need to communicate your scope of work with your LEA and comply with GMSA.
15. A GP made Drilling Services destroy a Geophysical Pipe. Although we have no problem doing this, I feel it is a waste of money since there is no conduit as it is a sealed pipe, a BBDS was filled out when the pipe was installed, so what paperwork is filled out when it is destroyed? Granted we don't do many of these yearly, but this needs to be addressed or we need to have a policy. We should have just tremie grouted full depth, but the BBDS question remains.
If there is a 2-inch annular space then contact the LEA and propose that the Geophysical pipe be installed, tremie grouted full length, and documented with a WCR/BBDS for each action (installation and destruction). If there isn't a 2-inch annular space then you must remove the installation (typically by over-drilling), seal the hole per the LEA sealing requirements, and document with a WCR/BBDS.
16. What happens if we decide to drill further than anticipated?
The LEA Determination Request Letter should state the location and proposed depth of your borings and CPT's. If you decide in the field to drill deeper than what was provided to the LEA then you should contact the LEA prior to drilling deeper.
17. If the max to keep a borehole open is 14 days, should I assume all of my work is C-57 work [requires a Consultant]?

GS-01 and GMSA Training FAQs

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No, do not assume that it is C-57 work. Follow GMSA and sent the LEA Determination Request Letter to the LEA. C-57 work will be determined by the LEA. You should tell the LEA in your LEA Determination Request Letter that you want to leave your borehole(s) open prior to sealing. You may only keep an open borehole for as long as agreed by the LEA. Each LEA may have different conditions for amount of time a borehole is allowed to be open. The LEA may have specific conditions for example they may want you to provide a monitoring well diagram and construct a monitoring well. Until Caltrans Drillers obtain a C-57 License all C-57 work will require a consultant.

18. For CPTs, how do we verify that we've hit ground water? The CPT Tech isn't a Water Code expert.

The GP should do sufficient research to estimate the depth to groundwater prior to sending the LEA Determination Request Letter. The letter should state if our proposed CPT's expect to extend to groundwater or do not expect to extend to groundwater. The LEA will review our letter and may agree or disagree with our estimated depth to groundwater and may stipulate C-57 work.

19. What happens if you need to leave the borehole open from more than 14 calendar days?

See #17. Caltrans policy is to never leave a borehole open for more than 14 calendar days (ref: GMSA)

20. Does the GP need to be there on the 14th day (or date when the borehole is being sealed)?

Yes, the GP is responsible to ensure the BBDS is filled out completely and accurately, in a quality manner while ensuring compliance with GS-01 (see GMSA, page 39, BBDS Processing Steps).

21. Will drillers know the required grout mix when they're out drilling?

Yes, the GP is responsible to get the proper grout mix from the LEA and provide it to Drilling Services on the Final Drilling Request package. The drilling services branch chief will review the permit requirements with the foundation driller lead worker and the drillers will have a copy of the final drilling request package in the field during drilling.

22. Does this process apply to Horizontal drains?

No. "Wells" (horizontal drains) used for the purpose stabilizing hillsides or earth embankments are specifically exempted in Water Code Section 13710.

23. How can we go back and abandon historic/open piezometers [before this new process begins]? How will resources be handled?

Geoprosessionals are not being asked to destroy historic piezometers. Caltrans is developing a statewide plan (including resources) to evaluate historic piezometers then perform appropriate mitigation measures. The Caltrans term is "destruction", not "abandon".

24. Regarding SIs, LA County requires a permit when trenching if you hit first water.

If you are installing SI's let the LEA know in your LEA Determination Request Letter. When installing SIs or trenching into groundwater you should send a LEA Determination Request Letter for LEA Conditions and whether a permit is required.

25. Permit for non C-57 work, who gets it since no consultant on board (right of way?) Many LEAs are heading in that direction, unfortunately.

GS-01 and GMSA Training FAQs

(Questions received from 12/8/14, 12/9/14, 12/18/14 & 12/19/14 training sessions)

If the LEA requires that a drilling permit be obtained for non-C-57 work, then the GP should coordinate with the District Design Branch to obtain the permit.

26. What about Drilling permits; do we need to archive them?

Yes, the LEA Permit must be archived in GeoDOG (ref: GMSA page 18).

27. Background: How many C-57's does Kleinfelder have? Does Kleinfelder have; for discussion, let's say one (1)?

Kleinfelder and Fugro each operate under one C-57 license.

Kleinfelder sends field staff. From personal experience, this is a low level recent hire, not an office chief. The new guy (?) does not have a C-57. So, is this working under a C-57? At best, at arm's distance.

Yes. See GMSA, Consultant Management Process for responsibilities of the consultant.

28. What is the approximate timeline for the drillers to get their C-57 licenses?

We do not know. Labor Relations is negotiating.

29. In cases where the consultant logs the borings, can we request that the consultant send their logs to the Branch Chief and geo-professional weekly? (Under Consultant Management Process, Slide 20, when the C-57 contractor drills and logs holes the drill logs are to be forwarded to Drilling Services weekly.)

GMSA, "Drilling Performed by Consultant", the drill log must be submitted weekly. Task order must state this requirement. Boring log submittal schedules are left to the geoprofessional.

30. The training directs the consultant to not help in data collection. Can the consultant representative and the lead driller take part in collecting installation data? A C-57 Consultant must witness the installation of standpipe piezometers and slope inclinometers. Can we not allow the consultant representative to record needed data? The consultant representatives stand idle much of the time, and it is my understanding that we will continue with the consultant for a very long time: a matter of years and not months?

See GMSA, Consultant Management Process for responsibilities of the consultant.

31. Related to the question above, can we provide our/the well completion logs to Kleinfelder after drilling is complete and we are back in the office, according to a deadline? I ask this because I find it difficult to complete logging the borings on site and provide logs to the consultant for the WCR. Commonly, the day is over and we vacate the roadway for safety reasons.

The soil information needed for the geologic section of the WCR is basic and can be completed either in the field or office. Refer to the WCR example in the DWR "How To Fill Out A Well Completion Report" publication.

32. We need a Consultant Oversight Guideline to make sure they follow our requirements. Consultant Oversight jobs are not necessarily through METS/GS task orders. We have two (2) major types of Oversight jobs:

a) Jobs are within Caltrans right-of-way, or Federal money is involved. These jobs require Caltrans approval.

GS-01 and GMSA Training FAQs

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- b) Local Agency Support. These are not Caltrans jobs. They would ask for Caltrans' courtesy review.

Agreed, however this topic will not be addressed in GMSA.

- 33. Re Consultant Oversight with Local Agency; what do we do?

This topic will not be addressed in GMSA.

- 34. Is the Consultant filling out the Drill Log?

Yes. See GMSA, Consultant Management Process. The geoprofessional is responsible to ensure Drill Log(s) are completed when the consultant provides the drilling rig and drilling crew.

- 35. How do we capture boreholes performed on a CCO from a construction contract? (our GPs log)

There are multiple job-specific possibilities. Focus on 1) getting LEA permit, 2) drill and seal per the permit provisions, 3) complete BBDS, 4) complete WCR, 5) follow documentation and Quality Management Plan per GMSA.

- 36. The following questions are regarding the section on Mandatory GS-01 Task Order Language.

- a. Can standard TO language be developed and provided to GPs? I would not expect there to be much variation among projects. Can we have drilling develop standard language and have GP review/edit for their project?

See GMSA Consultant Management Process for minimum mandatory language and add additional language as needed.

- b. Section refers to "Consultant" and "C-57 license holder". Is there a difference between the two? Is the Consultant Project Manager responsible, the field representative responsible, some other consultant staff person? Can the arrangement be more clearly explained or do we need to more clearly define responsibility?

They may or may not be the same. The consultant can hire a C-57 license holder to perform the work; therefore, relieving the consultant of those responsibilities.

- c. Are we required to verify that they have reviewed GS-01? Who and how?

No. However, the GP is required to include the mandatory language in the Task Order.

- d. Does the TO need to have language directing consultant to comply with GS-01 (besides reviewing)? NOTE: There is no language listed requiring consultant to provide permit and LEA requirements, however if the language requiring them to comply with GS-01 is included then I presume it is not needed since it is spelled out in GS-01.

A: Yes, refer to the mandatory GS-01 task order language. In addition to the mandatory language, the GP must provide the LEA C-57 Determination Request Letter in each task order.

- e. Can anyone in the consulting firm perform this work? Are there any professional requirements? Does the person need to have any experience in Water Code and LEA compliance? Does a requirement need to be put in the TO to protect Department interests?

(1) Anyone working as an employee of the C-57 licensed firm can represent the C-57 licensee. (2) No. (3) No. (4) No.

GS-01 and GMSA Training FAQs

(Questions received from 12/8/14, 12/9/14, 12/18/14 & 12/19/14 training sessions)

- f. Can an individual from another company that is a subconsultant perform this work under the prime consultant's license?

No.

- g. Currently there is no requirement or process to document that the license is valid or current. Can this be added and assigned to Drilling Services?

This action is typically performed by the LEA. No, this will not be assigned to Drilling Services.

- 37. GS-01 requires providing the PM the amount of the TO. Are we required to document that within a specified time frame and where does that documentation go?

Per GMSA Consultant Management Process, provide a A&E cost estimate to the District PM prior to the start of drilling and/or CPT work.

- 38. Can the responsibilities of the GP in regards to managing the TO be more clearly and specifically defined? Since the purpose is to retain an individual to take legal responsibility for C-57, what is their responsibility? Without further clarification it is not clear to me how we are to implement this requirement.

Work with your supervisor to address this question and follow GMSA.

- 39. This process causes additional work. How many additional hours should we resource?

Work this out with your supervisor and your client.

- 40. Has the issue of additional resources for continuous monitoring of piezometers been worked out?

Work this out with your supervisor and your client.

- 41. Can we get a special code for the continuous piezometer monitoring? This way we can track the cost of lane closures, drill rig hours, etc.

Work this out with your supervisor and your client.

- 42. Some of our work is "after drilling" & "before drilling"; these time limits do not necessarily work out. Seems like "magic numbers" dreamed up by someone who has never been in the field. How are discrepancies resolved between "wish", "actual" and "magic numbers"?

Follow GMSA. If you have a specific question post it on the discussion board.

- 43. For purposes of being compliant with the time frame for archiving the BBDS will it be based on the date it is submitted for uploading to GeoDOG or the date the GeoDOG manager actually archives the material? The material is silent on this last step. Is there a specified time frame for the GeoDOG manager to upload the document(s)?

The DBC has 25 days from borehole sealing to date submitted/uploaded to GeoDOG. Archiving procedures are documented in the Geotechnical Manual.

- 44. For the DGCC form, items 9- 16, if there was no activity how is the form completed? For example if the DBC did not drill in January how would he/she complete that part of the form? Or what if no LEA letters were sent, because they were sent the month before?

If there was no relevant activity then enter "n/a", and "none". Do not leave blank.

GS-01 and GMSA Training FAQs

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45. Can someone send out readable figures on BSPID? During Training, that section was difficult to follow because of the lack of figures. The slides were too small. Can someone take what was used to create the slides and send that out to us?

BSPID is now live in Project Tracking. You can see the figures there.

46. Kim [Matthews] needs to put documents on line.

Documents are on line on the Geotechnical Manual webpage.

47. Forms all need to be in one place.

GMSA forms are online on the Geotechnical Manual webpage.

48. Do we need to modify BSPID for geophysical pipe?

Yes, until instructed otherwise: If there is a 2-inch annular space then contact the LEA and propose that the Geophysical pipe be installed, tremie grouted full length, and documented with a WCR/BBDS for each action (installation and destruction). If there isn't a 2-inch annular space then you must remove the installation (typically by over-drilling), seal the hole per the LEA sealing requirements, and document with a WCR/BBDS.

49. There is so much effort on Drill Logs. However, they are not secure or uniform in that they can be altered by anyone. Why do people change/alter them? We need to be on the same page.

Only Drilling Services and GIB have write-access to the Drill Logs. Geoprosessionals and Design Branch Chiefs can view (read-only) them through Project Tracking. Drilling Services Branch Chiefs are responsible to ensure the drill logs are filled out accurately and completely.

50. Will forms be stored in an electronic repository [online]?

Forms are online on the Geotechnical Manual website; see the GMSA section.

51. Borehole Backfill Data Sheet:

- A. Provide location for the LEA and C-57 license holder to sign/initial

This has been evaluated and will not be adopted.

- B. Provide location for notes (these can be lengthy)

Use additional sheets as necessary.

52. Will Drill crews fill out the forms in the field?

The BBDS for borings must be completed in the field by the GP and signed by Drilling Leadworker in the field.

The BBDS for CPTs must be completed in the field by the CPT technician and signed by CPT technician in the field.

The Lead Driller/CPT technician makes notes in the field. Drill Logs must be turned in no less than once per week.

53. The example of the LEA letter shows it is signed by the DBC. Can the GP sign it?

No, unless delegated by the DBC.

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54. Is PSQC form also integrated in tracking forms?

This is not part of GMSA.

55. Slide 29: CPT Technician gives BBDS to Consultant? GIBC won't have a chance to review.

GMSA will be modified. The C-57 holder does not get a copy of the BBDS for soundings until it is approved and signed by the GIBC.

56. BBDS form is typed [in the PPP] how do we get signatures?

BBDS must be completed at the borehole location and signed by appropriate field staff in the field. You are not required to type the form. The example should have been hand-written, we will change.

57. Is there enough room on the BBDS for all the required signatures?

Yes.

58. After borings are backfilled and completed, then new GS-01 requires that we archive those documents into GeoDOG within 25 days. On some projects with new bridges, the structure names and structure numbers are not yet created so if I were to archive into GeoDOG then it would be logged into the system incompletely. GeoDOG would accept its location but it would not be discoverable by name or bridge number. I was wondering if one could simply submit for an exception to this policy for these scenarios, to avoid uploading something into GeoDOG that is incomplete and not able to be modified by the geotech designer down the road and undiscoverable in some ways.

Follow the archiving directions in GMSA. Work with the Archive Manager to update submittals as information becomes available. It is not necessary to update the forms.

59. Currently, the archiving policy for documents retained into GeoDOG excludes permits. It seems that with all the QC/QA steps in place, that simply placing into the Design File Retention Center for each office/branch would be sufficient. This would be consistent with our other important permits (i.e. Fish & Game, Coastal Commission, CE, etc.). I propose that we simply place into the Design File Retention Center and be consistent with our other archive policy.

Follow the archiving directions in GMSA. Upload LEA Permits into GeoDOG under Type "borehole compliance".

60. Where is the GS Design File Retention Center Located? How are documents placed there? Who places them there?

Work out this detail with your supervisor.

61. Did Legal decide that we retain the documents for 5 years? What if regulations required that we keep certain documents for longer?

5 years is the minimum unless otherwise specified.

GS-01 and GMSA Training FAQs

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62. I see a potential problem to the proposed policy and the ability to do the QC/QA efficiently with the current "FileMaker Pro" system. Unless all documents are placed in the same data management system, I see the potential for a lot of wasted time in different offices (design, drilling, etc.) trying to reconcile difference in boring names, structure names, structure location (i.e. P.M.) and other items. I suggest that all items are on the same server and database system, starting at the drilling request through drillers log through BSPID, so everyone is using the same nomenclature, boring name, structure name, and locations. This will facilitate the proposed QC/QA system. Maybe you guys already have this addressed but based on what I saw yesterday it appears that the drill request and drillers logs are not part of the same system. **The different databases have been combined and are being periodically improved. Tracking numbers have been added to all forms to help you.**
63. Someone raised a concern for database security. That has always been a concern. Right now, someone from North and go mess with project tracking on someone else's project without anyone knowing. Maybe Shawn has access to some file that tells who did what where. **Passwords have been assigned to mitigate this concern.**
64. "System will automatically..." This sounds optimistic. Multiple forms will automatically function together?
Yes, that is the vision.
65. Can the WCR be added to the drop-down list in GeoDOG?
No, use "borehole compliance" for all GMSA documents.
66. Can we develop a better numbering system for borings? It's difficult to query with so many identical boring numbers.
Not part of GMSA. Try using the Project Tracking Number.
67. Can you provide periodic compliance reports from the project tracking database?
Yes, compliance is reported to the Deputy Division Chief.
68. How are mistakes corrected?
See GMSA Quality Assurance Plan.
69. Distribute org charts or send link so that DBCs know who the Foundation Driller Lead Worker works for (the DSBC).
Org charts are now available on the GS Website.
70. Include slide 62 in the GMSA manual.
We will make it available either in GMSA or on the webpage.

GS-01 and GMSA Training FAQs

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71. Can you annotate the Drilling Flow Chart so that it connects the user with the specific section of the manual where that process is documented?

There is no plan to do this.

72. Can you provide a large wall size plot of the Drilling Flow Chart to be used as a training tool for staff?

Yes, after it is updated.

73. Some LEAs have annual or blanket permits for drilling. Can our consultants purchase that permit for that LEA and still meet the permitting requirements outlined in GMSA?

This can be considered on a case-by-case basis as determined by the Design Office Chief as long as permitting conditions are communicated and documented per GMSA.

74. I have a consultant logging and observing the grouting of the hole. He states that his supervisor doesn't need to sign the BBDS form in the Design Branch Chief section. Who has to sign it?

See page 40. The DBC is responsible to sign the BBDS.

75. My design Office has at least one job that was drilled in December 2014 that the geoprofessional and/or the C-57 Consultant used the BBDS rev. 5/12/14 instead of the BBDS rev. 9/18/14. The Consultants were given the old form with the Task Order. The BBDS was already archived and accepted into GeoDOG. Do we need to re-do the BBDS using the newest revision? Please Advise.

No.